

2. Charles

Program Name: Charles.java

Input File: charles.dat

Charles is curious about some of the properties of factors. To begin his study, Charles needs a program that will allow him to find the sum of all of the factors of an integer and display those factors in the form of a sum of integers. From there, he will proceed with the investigation.

Input:

The first line consists of a number N, representing the number of lines of data to follow. N will be in the range of [1,50]. The next N lines of data consist of one whole number in the range of [1,100].

Output:

The output will list the factors of the input listed in ascending order separated by a plus sign. At the end of the list of factors, there will be one equals mark followed by the sum of the factors. There will be no spaces in the output.

If there is only one factor, there of course will be no plus signs.

Sample input:

```
5
30
28
25
1
17
```

Sample output:

```
1+2+3+5+6+10+15+30=72
1+2+4+7+14+28=56
1+5+25=31
1=1
1+17=18
```